

Applicant : David H. Kil
Serial No. : 10/662,765
Filed : September 15, 2003
Page : 10 of 14

Attorney Docket No.: 14255-0035001
Client Ref. No.: IP-0400MDUS

Amendments to the Drawings

The attached replacement sheets of drawings of Figures 1 to 20 replace the drawings submitted on January 6, 2004, the only amendment being the insertion of the replacement sheet identifier in the top margin of each sheet.

Attachments following last page of this Amendment:

Replacement Sheets (21 pages)

REMARKS

Claims 1 to 36 are pending in the application. Claims 19 to 29 have been withdrawn by the Office. Claim 1 has been amended to recite the subject matter with even greater particularity. The amendment is supported throughout the specification and claims as originally filed, *e.g.*, at page 5, paragraph [0012], and claims 1 and 2, of the published application (U.S. Publication No. 2004/0093166). The drawings have been amended to include the status of each replacement sheet. The amendments add no new matter to the application.

Objections to Drawings

The formal drawings submitted on January 6, 2004 were objected to because the drawings were not properly identified as replacements. Applicant submits herewith replacement drawings of Figures 1 to 20 that include the “replacement sheet” identifier in the top margin of each sheet. Accordingly, applicant submits that the drawings are in compliance with 37 C.F.R. § 1.121(d) and requests reconsideration and withdrawal of the objection.

Withdrawn Rejections

Applicant acknowledges with appreciation that the rejection of claims 1 to 18 and 30 to 36 under 35 U.S.C. § 101 has been withdrawn in view of applicant’s amendments and arguments.

Rejections under 35 U.S.C. § 103(a)

Claims 1, 2, 4 to 6, 8, 9, 11, 13 to 17, and 30 to 36 were rejected as allegedly unpatentable over Gleason *et al.* (U.S. Patent No. 6,456,899; “Gleason”). The Office characterizes Gleason as disclosing all elements recited in claim 1 except that of recording the ranked extracted features and asserts that Gleason suggested this feature “because they teach at col. 4, lines 4-6, that the extracted features, prior to being ranked, are in a table, which inherently means that the features prior to ranking have been recorded” (Office Action at page 6).

Applicant respectfully traverses and submits that the present claims are nonobvious over the prior art, including Gleason, for at least the following reasons.

As a first matter, Gleason does not disclose, or even suggest, *inter alia*, selecting at least one ROI and at least one non-ROI from a first image at a pixel level of processing. The present claims recite selecting the ROI(s) and non-ROI(s) from the same first image. In contrast, Gleason describes comparing an image of a region in a reference semiconductor chip with an image of an identical region in a second semiconductor chip to determine whether the second semiconductor chip has any defects (*see* 2:54-58; and Figures 1 and 2). These images are segmented “into different physical regions where each region corresponds to a different layer of semiconductor material such as metal or polysilicon” (3:30-34).

The Office states that “the particular selection of a segmented region, i.e. ROI, then implicitly at the same time, is selecting the other segmented regions as non-ROIs” (Office Action at page 5). Applicant respectfully disagrees with this characterization of Gleason. First, applicant respectfully maintains that the Office’s assertion here is a non sequitur, since selection of one segmented region as a ROI does not inform whether other regions are either “of interest” or “not of interest.” Furthermore, Gleason seemingly discloses that all regions of Gleason’s semiconductor wafer are regions of interest. For example, Gleason discloses that “layer feature extractor 16 measures characteristics or features about each one of the segmented regions in the reference image” (Gleason, 3:57-59; emphasis added). See also Gleason at 3:64 to 4:1.

Nevertheless, even if one were to construe Gleason’s segmented regions as ROIs and non-ROIs, which applicant submits is not a fair reading of the reference, Gleason does not describe, *inter alia*, selecting at least one ROI and at least one non-ROI from the same image and ranking, in a combinatorial manner, the extracted features from the ROI and non-ROI based on feature performance for successful detection of a selected ROI at a pixel level of processing. Rather, Gleason discloses a layer classifier 18 that classifies *each layer (region)* of a reference image 21 according to its feature characteristics (Gleason, 4:19-22). Thus, Gleason does not disclose ranking, in a combinatorial manner, features from different regions of the same image, much less features from a ROI and a non-ROI, as required by claim 1.

For the above reasons, applicant asserts that skilled practitioners would not have been motivated by Gleason or anything else in the prior art to perform the recited method. Accordingly, the Office has failed to establish a *prima facie* case of obviousness of the claims over Gleason. Applicant therefore respectfully requests that the rejection be reconsidered and withdrawn.

Claims 3, 7, 10, 12, and 18 were rejected as allegedly unpatentable over Gleason in view of Levenson *et al.* (U.S. Patent No. 6,750,964; “Levenson”). The Office has added Levenson for allegedly disclosing a method of laser capture microdissection after target image analysis and asserts that “[i]t would have been obvious to one of ordinary skill in the art at the time of the instant invention to have used a method of image analysis as taught by Gleason *et al.* for use in a method for laser capture microdissection as taught by Levenson *et al.*” (Office Action at page 13). Applicant respectfully traverses.

Levenson, like Gleason, does not disclose, or even suggest, all the elements of claim 1. For example, Gleason, either alone or in combination with Levenson, does not disclose selecting at least one ROI and at least one non-ROI from a first image at a pixel level of processing and ranking, in a combinatorial manner, the extracted features from the ROI and non-ROI based on feature performance for successful detection of a selected ROI at a pixel level of processing. As claim 1 is nonobvious, any claim depending from claim 1, including claims 3, 7, 10, 12, and 18, are also nonobvious for at least the same reasons. Accordingly, the rejection should be withdrawn.

Thus, the Office has not established a *prima facie* case of obviousness against the presently claimed methods. No combination of Gleason and Levenson, disclose or suggest every element of the claims. Further, skilled practitioners would not have been motivated by these references, or anything else in the art, to modify the method described in Gleason in an attempt to arrive at applicant’s claimed methods. Even if a skilled practitioner were to combine these references, the claimed methods still would not have been obtained because they do not disclose or suggest all recited elements, as discussed above herein. Applicant therefore respectfully requests that the rejection be reconsidered and withdrawn.

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Page : 14 of 14

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CONCLUSION

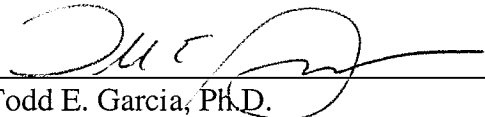
Applicant submits that the pending claims are allowable and request early and favorable action thereon. Applicant does not concede any positions of the Office that are not expressed above, nor does applicant concede that there are not other good reasons for patentability of the presented claims or other claims.

The Petition for Two-Month Extension of Time fee (\$490) is being paid on the electronic filing system by way of deposit account authorization. Please apply any other charges or credits to Deposit Account No. 06-1050, referencing Attorney Docket No. 14255-0035001.

Respectfully submitted,

Date: _____

7/6/10



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